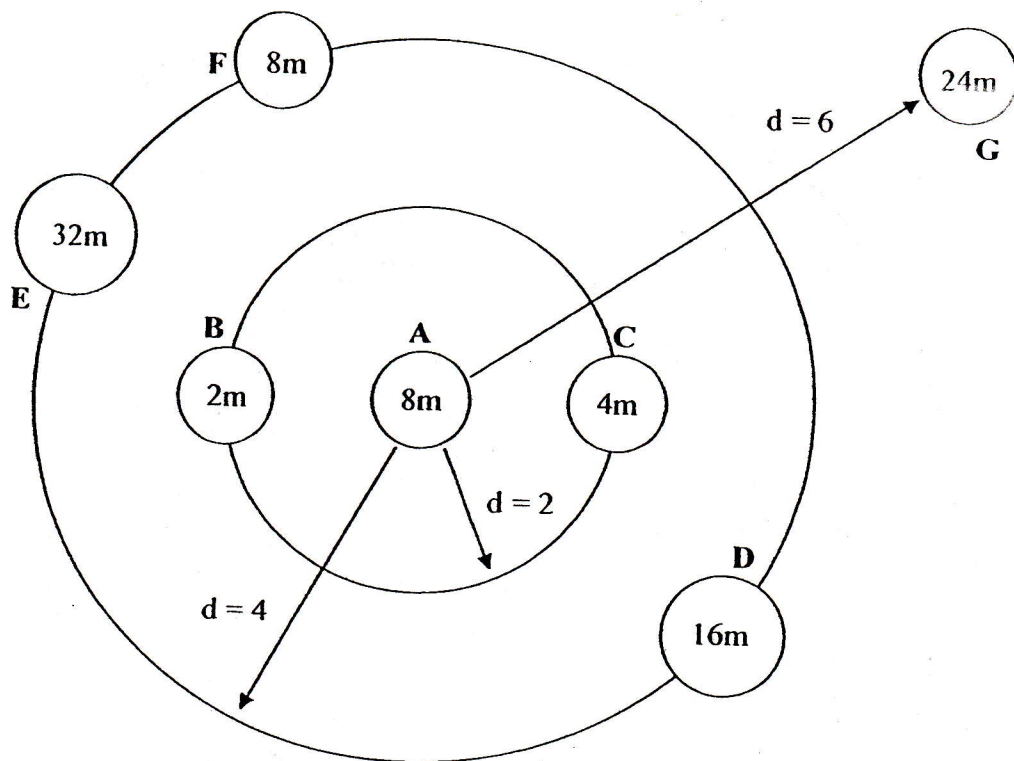


# Newton's Gravity Practice - Orb Map 1



## Simplified Formula:

$$\text{Force} = \frac{m_1 \times m_2}{d^2}$$

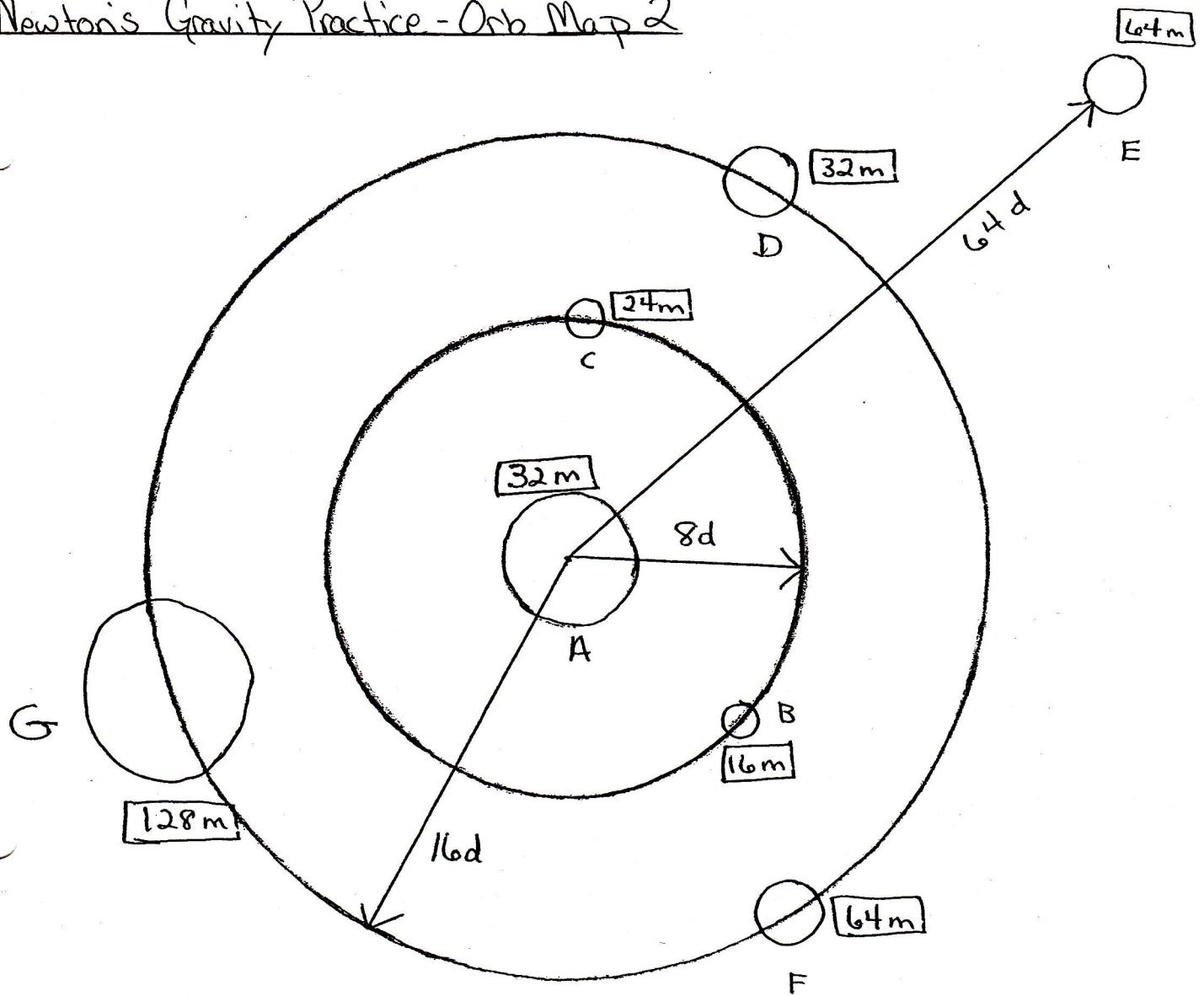
-Force means the force of gravity

- $m_1$  and  $m_2$  are the two masses pulling on each other by gravity

-d is the distance between  $m_1$  and  $m_2$

20. \_\_\_\_\_ The gravity is strongest between A and ?
21. \_\_\_\_\_ The gravity is weakest between A and ?
22. \_\_\_\_\_ How many times stronger is the gravity between A and E than between A and B?
23. \_\_\_\_\_ How many times stronger is the gravity between A and C than between A and B?
24. \_\_\_\_\_ What would be the force of gravity between A and D if D moved to a distance of 8d?
25. \_\_\_\_\_ If letter B's mass were to double, its gravity would be:  
(A) 2x greater (B) 4x greater (C) 8x greater
26. \_\_\_\_\_ If the distance to letter B would double, its gravity would:  
(A) double (B) decrease 2x (C) decrease 4x

# Newton's Gravity Practice - Orb Map 2



Calculate the forces and record the values.

1.  $F_{ab} = \underline{\hspace{2cm}}$

2.  $F_{ac} = \underline{\hspace{2cm}}$

3.  $F_{ad} = \underline{\hspace{2cm}}$

4.  $F_{ae} = \underline{\hspace{2cm}}$

5.  $F_{af} = \underline{\hspace{2cm}}$

6.  $F_{ag} = \underline{\hspace{2cm}}$

7. The strongest force is between A and  $\underline{\hspace{2cm}}$

8. What would happen to the force on F if it moved to  $64d$ ?